

## BOOK REVIEWS

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### ISLAND FAUNAS

**Zoologia Neocaledonica (New Series), Vol. 1.** S. Tillier (ed.) 1988. Mém. Mus. nat. d'Histoire Nat. 142:1-158. Available through E. J. Brill, Leiden, the Netherlands. Subscription price not supplied.

Captain James Cook was the first non-Melanesian to know of its existence, in 1774. Sixty-nine years later, there was a French Catholic mission established on this large island, 800 miles east of Australia. Being insular, it still has one of the singularly unique biotas of the world. For one, it is ancient (Paleozoic, as well as Cenozoic formations are exposed); it has an extensive interior cordillera (with peaks up to 5,500 ft); the east coast has rich subtropical forests, the west savanna; relicts, such as *Araucaria*, reign dominant. It is a fascinating section of the Austral Region. The island is also extremely rich in mineral resources and, ever since France annexed the island in 1853, deforestation has been rampant because of the strip mining for nickel and other metals. New Caledonia is now a French overseas territory, its biota endangered and unique, and a concerted collecting and survey effort is now being made to learn of its animals.

This is the first volume in a projected series devoted to the faunal analysis of New Caledonia. Five of the 14 contributions concern Diptera, the order of my specialty, which is why the volume was passed to me. Three of these Diptera contributions are on the Mycetophilidae and Drosophilidae, families of my special interest and research. All 14 contributions are on Hexapoda. It is a serial publication that taxonomists will want to watch for, and probably request reprints from for their groups, but it is not the sort of periodical to personally subscribe to (larger natural history libraries should be subscribing to this series).

All the contributions are of course in French (some of which have an English version of the *résumé*), with all contributors except one being either at the Laboratoire d'Entomologie, of the CNRS (Centre National Recherche Scientifique) in the Paris Museum, and/or at the Laboratoire d'Ecologie général (in Brunoy at the Université Paul Sabatier). Chapter one is the most important one in the series and would be generally useful to anyone with a biogeographic interest in New Caledonia. It gives descriptions of the collecting localities and a map, as well as a list of the papers (by taxa) published in Sarasin and Roux's series, Nova Caledonia, which appeared sporadically from 1913-1929, entirely in German.

Five papers (chapters 2, 3, 4, 5, 6) are each on a separate family of Poduromorpha Collembola. None of these treats the entire family being dealt with for New Caledonia, although the first collembolan paper, on the Hypogastruridae, gives a list of the 21 species in 7 families formerly known to exist in New Caledonia. Basically, these papers are just species and genus descriptions; the systematics is hardly synthetic. Najt's paper, on a new species of *Dinaphorura* (Oxychiuridae) does give a world key to species of the genus (I don't care how nationalistically proud the French may be of their language, but if I were Chilean, I would be very offended at their spelling, used by Najt, of "Chili"). The contributions are well illustrated, which might save

future taxonomists the need to rummage through the Paris Museum to examine types and verify identifications. Other contributions are on the Phasmatodea (which at least gives a key to species in New Caledonia), one on two species of cicadas, a new genus of eriococcid scales, two new species of *Dasyhelea* biting midges, 2 new species of *Mycetobia* wood gnats, the keroplatine mycetophilids, the ditomyiine mycetophilids, and the drosophilids in the subgenera *Sophophora* and *Drosophila*. At least two of the authors, of which I am aware, have published elsewhere on New Caledonia taxa, so one might have to do some sleuthing to track down all the French papers treating New Caledonia taxa in your group (e.g., Clastrier, 1987; Matile, 1986). The popularity of faunal works (vs. revisionary treatments) with the French is disconcerting: in many cases it simply generates excessive higher-level nomenclature for localized taxa, with little regard to phylogenetic relationships among the worldwide taxa. Unfortunately for the French method, the uniqueness of New Caledonia and its fauna cannot be realized simply by describing a new genus of this or that. Analytic methods in historical biogeography among the French have not progressed beyond Jeannel.

The paper on *Mycetobia* is very interesting, for this is the first Australasian record of what is certainly the most primitive genus of Anisopodidae (the authors indicate, and are probably correct, that *Mycetobia* should be in its own family, the Mycetobiidae). I would have liked to see illustrations of the wing venation of these two new species. As well, how do these two species relate to other, world species of *Mycetobia*? It's an intriguing question given the apparent disjunct distribution of the genus (1 North American species, 1 species each from Costa Rica, Dominica [Lesser Antilles], and Ethiopia, and a possible Chilean species—certainly there are species between these areas as yet undetected). By far the best paper is the one by Matile on the Keroplatidae, and this is not due only to the fact that I am interested in this group. The paper is the largest in the volume (47 pp.), treats all of the species for New Caledonia, and includes the descriptions of 3 new genera and 29 new species. It is very well illustrated, with life history notes on web-dwelling mycophile keroplatines. Matile even borrowed material from the Bishop Museum for study. Only two minor comments on this paper: figures 6–13 are poorly reproduced, with some of the fine wing veins having disappeared in the printing; the heading on pp. 133 and 135 should be Keroplatidae, not Ditomyiidae.

It will be interesting to see what will happen to the series. Will its production be as irregular and short lived as the Sarasin and Roux series? Either the French taxonomists will become generalists, or the series will end when the current specialists there have treated all the taxa that they can: I don't expect global participation in this project, which is unfortunate for a globally unique fauna.—*David Grimaldi, Department of Entomology, The American Museum of Natural History, New York, New York 10024.*

#### LITERATURE CITED

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